

At page 72, line 7, insert --(SEQ ID NO:57)-- after "AAC-3'"  
At page 72, line 8, insert --(SEQ ID NO:58)-- after "TTC-3'"  
At page 73, line 7, insert --(SEQ ID NO:59)-- after "TGC-3'"  
At page 73, line 14, insert --(SEQ ID NO:60)-- after "GC3'"  
At page 75, line 11, insert --(SEQ ID NO:61)-- after "TAG-3'"  
At page 75, line 13, insert --(SEQ ID NO:62)-- after "GGA-3'"  
At page 76, line 16, insert --(SEQ ID NO:63)-- after "GAC-3'"  
At page 76, line 33, insert --(SEQ ID NO:64)-- after "ACC-3'"

## IN THE CLAIMS

Please amend the claims as follows:

In claim 62, delete "2" and insert -87--

In claim 63, delete "27" and insert -97--

In claim 64, delete "28" and insert -98--

In claim 74, delete "2" and insert -87--

Add new claims 87-131.

Delete claims 63, 64, 66-70, 72, and 73.

~~65.~~ (Amended) An isolated DNA molecule coding for a polypeptide having the ability to

bind TNF, wherein said polypeptide is selected from the group consisting of:

A) a polypeptide comprising the amino acid sequence:

asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln
asn	asn	ser	ile	cys	cys	thr	lys	cys	his	lys	gly	thr
tyr	leu	tyr	asn	asp	cys	pro	gly	pro	gly	gln	asp	thr
asp	cys	arg	glu	cys	glu	ser	gly	ser	phe	thr	ala	ser
glu	asn	his	leu	arg	his	cys	leu	ser	cys	ser	lys	cys
arg	lys	glu	met	gly	gln	val	glu	ile	ser	cys	thr	
val	asp	arg	asp	thr	val	cys	gly	cys	arg	lys	asn	gln
tyr	arg	his	tyr	trp	ser	glu	asn	leu	phe	gln	cys	phe
asn	cys	ser	leu	cys	leu	asn	gly	thr	val	his	leu	ser

cys gln glu lys gln asn thr val cys thr cys his ala  
 gly phe phe leu arg glu asn glu cys val ser cys ser  
 asn cys lys ser leu glu cys thr lys leu cys cys  
 pro gln ile glu asn

[, or a C- and/or N- terminally shortened sequence thereof];

B) a polypeptide comprising the amino acid sequence:

180F  
 leu val pro his leu gly asp arg glu lys arg asp ser val  
 cys pro gln gly lys tyr ile his pro gln asn asn ser ile  
 cys cys thr lys cys his lys gly thr tyr leu tyr asn asp  
 cys pro gly pro gly gln asp thr asp cys arg glu cys glu  
 ser gly ser phe thr ala ser glu asn his leu arg his cys  
 leu ser cys ser lys cys arg lys glu met gly gln val glu  
 ile ser ser cys thr val asp arg asp thr val cys gly cys  
 arg lys asn gln tyr arg his tyr trp ser glu asn leu phe  
 gln cys phe asn cys ser leu cys leu asn gly thr val his  
 leu ser cys gln glu lys gln asn thr val cys thr cys his  
 ala gly phe phe leu arg glu asn glu cys val ser cys ser  
 asn cys lys lys ser leu glu cys thr lys leu cys leu pro  
 gln ile glu asn;

[, or a C- and/or N- terminally shortened sequence thereof]

C) a polypeptide comprising the amino acid sequence:

180X  
 asp ser val cys pro gln gly lys tyr ile his pro gln asn  
 asn ser ile cys cys thr lys cys his lys gly thr tyr leu  
 tyr asn asp cys pro gly pro gly gln asp thr asp cys arg  
 glu cys glu ser gln thr ala ser glu asn his leu  
 arg his cys leu ser cys ser lys cys arg lys glu met gly  
 gln val glu ile ser ser cys thr val asp arg his tyr trp ser  
 cys gly cys arg lys asn gln tyr arg his tyr trp ser glu  
 asn leu phe gln cys phe asn cys ser leu cys leu asn gly  
 thr val his leu ser cys gln glu lys gln asn thr val cys  
 thr cys his ala gly phe phe leu arg glu asn glu cys val  
 ser cys ser asn cys lys ser leu glu cys thr lys leu asp ser  
 cys leu pro gln ile glu asn val lys gly thr glu asp ser  
 gly thr thr

[, or a C- and/or N- terminally shortened sequence thereof]; and

D) a polypeptide comprising the amino acid sequence:

leu val pro his leu gly asp arg glu lys arg asp ser val  
 5

cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser	ile
cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn	asp
cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys	glu
ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his	cys
leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val	glu
ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly	cys
arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu	phe
gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val	his
leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys	his
ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys	ser
asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu	pro
gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr	thr

[. or a C- and/or N- terminally shortened sequence thereof]

E) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one conservative amino acid substitution;

F) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a glycosylation site;

G) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a proteolytic cleavage site; and

H) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a cysteine residue.

1. (Amended) An isolated DNA molecule coding for a polypeptide having the ability to bind TNF selected from the group consisting of:

A) a polypeptide comprising the amino acid sequence:

met	asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln
asn	asn	ser	ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr
leu	tyr	asn	asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys
arg	glu	cys	glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his
leu	arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met
gly	gln	val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr
val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser
glu	asn	leu	phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn
gly	thr	val	his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val
cys	thr	cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys

leu cys leu pro gln ile glu asn

[, or a C- and/or N- terminally shortened sequence thereof];

B) a polypeptide comprising the amino acid sequence:

met leu val pro his leu gly asp arg glu lys arg asp ser  
val cys pro gln gly lys tyr ile his pro gln asn asn ser  
ile cys cys thr lys cys his lys gly thr tyr leu tyr asn  
asp cys pro gly pro gly gln asp thr asp cys arg glu cys  
glu ser gly ser phe thr ala ser glu asn his leu arg his  
cys leu ser cys ser lys cys arg lys glu met gly gln val  
glu ile ser ser cys thr val asp arg asp thr val cys gly  
cys arg lys asn gln tyr arg his tyr trp ser glu asn leu  
phe gln cys phe asn cys ser leu cys leu asn gly thr val  
his leu ser cys gin glu lys gln asn thr val cys thr cys  
his ala gly phe phe leu arg glu asn glu cys val ser cys  
ser asn cys lys lys ser leu glu cys thr lys leu cys leu  
pro gln ile glu asn

[, or a C- and/or N- terminally shortened sequence thereof];

C) a polypeptide comprising the amino acid sequence:

met asp ser val cys pro gln gly lys tyr ile his pro gln  
asn asn ser ile cys cys thr lys cys his lys gly thr tyr  
leu tyr asn asp cys pro gly pro gly gln asp thr asp cys  
arg glu cys glu ser gly ser phe thr ala ser glu asn his  
leu arg his cys leu ser cys ser lys cys arg lys glu met  
gly gln val glu ile ser ser cys thr val asp arg asp thr  
val cys gly cys arg lys asn gln tyr arg his tyr trp ser  
glu asn leu phe gln cys phe asn cys ser leu cys leu asn  
gly thr val his leu ser cys gln glu lys gln asn thr val  
cys thr cys his ala gly phe phe leu arg glu asn glu cys  
val ser cys ser asn cys lys lys ser leu glu cys thr lys  
leu cys leu pro gln ile glu asn val lys gly thr glu asp  
ser gly thr thr

[, or a C- and/or N- terminally shortened sequence thereof];

D) a polypeptide comprising the amino acid sequence:

met leu val pro his leu gly asp arg glu lys arg asp ser  
val cys pro gln gly lys tyr ile his pro gln asn asn ser  
ile cys cys thr lys cys his lys gly thr tyr leu tyr asn

asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr
thr													

[, or a C- and/or N- terminally shortened sequence thereof];

E) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gin	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn									

[, or a C- and/or N- terminally shortened sequence thereof];

F) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val

glu ile ser ser cys thr val asp arg asp thr val cys gly  
 cys arg lys asn gln tyr arg his tyr trp ser glu asn leu  
 phe gln cys phe asn cys ser leu cys leu asn thr val cys  
 his leu ser cys gln glu lys gln asn thr val cys  
 his ala gly phe phe leu arg glu asn glu cys val ser cys  
 ser asn cys lys lys ser leu glu cys thr lys leu cys leu  
 pro gln ile glu asn val lys gly thr glu asp ser gly thr  
 thr

[, or a C- and/or N- terminally shortened sequence thereof];

**G) a polypeptide comprising the amino acid sequence:**

*part 13*  
 met gly leu ser thr val pro asp leu leu leu pro  
 leu val leu leu glu leu leu val gly ile tyr pro  
 ser gly val ile gly asp ser val cys pro gln gly  
 lys tyr ile his pro gln asn asn ser ile cys cys  
 thr lys cys his lys gly thr tyr leu tyr asn asp  
 cys pro gly pro gly gln asp thr asp cys arg glu  
 cys glu ser gly ser phe thr ala ser glu asn his  
 leu arg his cys leu ser cys ser lys cys arg lys  
 glu met gly gln val glu ile ser ser cys thr val  
 asp arg asp thr val cys gly cys arg lys asn gln  
 tyr arg his tyr trp ser glu asn leu phe gln cys  
 phe asn cys ser leu cys leu asn gly thr val his  
 leu ser cys gln glu lys gln asn thr val cys thr  
 cys his ala gly phe phe leu arg glu asn glu cys  
 val ser cys ser asn cys lys ser leu glu cys  
 thr lys leu cys leu pro gln ile glu asn

[, or a C- and/or N- terminally shortened sequence thereof];

**H) a polypeptide comprising the amino acid sequence:**

*part 14*  
 met gly leu ser thr val pro asp leu leu leu pro leu val  
 leu leu glu leu leu val gly ile tyr pro ser gly val ile  
 gly asp ser val cys pro gln gly lys tyr ile his pro gln  
 asn asn ser ile cys cys thr lys cys his lys gly thr tyr  
 leu tyr asn asp cys pro gly pro gly gln asp thr asp cys  
 arg glu cys glu ser phe thr ala ser glu asn his  
 leu arg his cys leu ser cys ser lys cys arg lys glu met  
 gly gln val glu ile ser ser cys thr val asp arg asp thr  
 val cys gly cys arg lys tyr trp ser  
 glu asn leu phe gln cys phe asn cys ser leu cys  
 gly thr val his tyr leu asn gln asn thr val

cys	thr	cys	his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys
val	ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys
leu	cys	leu	pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp
ser	gly	thr	thr										

1 [, or a C- and/or N- terminally shortened sequence thereof]; and

I) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	ieu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr
thr	val	leu	leu	pro	leu	val	ile	phe	phe	gly	leu	cys	leu
leu	ser	leu	leu	phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg
trp	lys	ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	lys	pro	thr
leu	ala	pro	asn	pro	ser	phe	ser	pro	thr	pro	gly	phe	thr
pro	thr	leu	gly	phe	ser	pro	val	pro	ser	ser	thr	phe	thr
ser	ser	ser	thr	tyr	thr	pro	gly	asp	cys	pro	asn	phe	ala
ala	pro	arg	arg	glu	val	ala	pro	pro	tyr	gln	gly	ala	asp
pro	ile	leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro	gln	ser
leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr	ala	val	val	glu
asn	val	pro	pro	leu	arg	trp	lys	glu	phe	val	arg	arg	leu
gly	leu	ser	asp	his	glu	ile	asp	arg	leu	glu	leu	gln	asn
gly	arg	cys	leu	arg	glu	ala	gln	tyr	ser	met	leu	ala	thr
trp	arg	arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu	leu
leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly	cys	leu
glu	asp	ile	glu	glu	ala	leu	cys	gly	pro	ala	ala	ala	leu
pro	ala	pro	ser	leu	arg;								

1 [, or a C- and/or N- terminally shortened sequence thereof]

I 1) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one conservative amino acid substitution;

I 2) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a glycosylation site;

I 3) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a proteolytic cleavage site; and

I 4) a polypeptide comprising the amino acid sequence of A, B, C, D, E, F, G, H or I with at least one amino acid substitution at a cysteine residue.

3  
74. (Amended) An isolated DNA molecule [according to claim 87], wherein said DNA is selected from the group consisting of:

I A) a DNA molecule comprising the sequence:

CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT  
GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT  
TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG  
TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC  
AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC  
CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG  
GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC  
CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG  
CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC  
AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG  
GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT  
CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT  
AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG  
ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof];

I B) a DNA molecule comprising the sequence:

CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT AGT  
GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT AAT  
TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC TTG  
TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC  
AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC  
CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG

GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC  
CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC CGG  
CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT TGC  
AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC CAG  
GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT TTC TTT  
CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC TGT AAG  
AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC CAG ATT  
GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC ACA

[, or a C- and/or N- terminally shortened sequence thereof];

I C) *a DNA molecule comprising the sequence:*

GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA  
AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC  
TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG  
GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA  
GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC  
CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA  
GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG  
TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC  
AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC  
TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA  
GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT  
AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA  
CCC CAG ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof]; and

II D) *a DNA molecule*

D) *DNA comprising the sequence:*

GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA  
AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC  
TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG  
GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA  
GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC  
CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA  
GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG  
TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC  
AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC  
TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA  
GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT  
AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA  
CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC  
ACC ACA;

[, or a C- and/or N- terminally shortened sequence thereof]

I E) a DNA sequence of A, B, C or D encoding at least one conservative amino acid substitution;  
I F) molecule comprising the  
a DNA sequence of A, B, C or D encoding at least one amino acid substitution at  
a glycosylation site;  
I G) molecule comprising the  
a DNA sequence of A, B, C or D encoding at least one amino acid substitution at  
a proteolytic cleavage site; and  
I H) molecule comprising the  
a DNA sequence of A, B, C or D encoding at least one amino acid substitution at a  
cysteine residue.

*14*  
I An isolated DNA molecule

I 75. (Amended) DNA coding for a polypeptide having the ability to bind to TNF,  
wherein said DNA coding said polypeptide is selected from the group consisting of:

I A) a DNA molecule  
I A) DNA comprising the sequence:

*tab 60*  
ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT  
AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT  
AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC  
TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC  
TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA  
AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA  
AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG  
GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC  
CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT  
TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC  
CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT  
TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC  
TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC  
CAG ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof];

I B) a DNA molecule  
I B) DNA comprising the sequence:

*tab 61*  
ATG CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA GAT  
AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT CAA AAT  
AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA ACC TAC  
TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT ACG GAC  
TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA

AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA  
AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG  
GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC  
CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC AAT  
TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC TCC TGC  
CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT GCA GGT  
TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT AGT AAC  
TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC CTA CCC  
CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA GGC ACC  
ACA

[, or a C- and/or N- terminally shortened sequence thereof];

*a DNA molecule*

C) ~~DNA~~ comprising the sequence:

ATG GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT  
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA  
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT  
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT  
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA  
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC  
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC  
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT  
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT  
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC  
CTA CCC CAG ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof];

*a DNA molecule*

D) ~~DNA~~ comprising the sequence:

ATG GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT  
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA  
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT  
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT  
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA  
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC  
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC  
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT  
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT

AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC  
CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA  
GGC ACC ACA

[, or a C- and/or N- terminally shortened sequence thereof];

E) <sup>a DNA molecule</sup>  
I <sup>1</sup> DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA  
CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC  
TCA GGG GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC  
AGG GAG AAG AGA GAT AGT GTG TGT CCC CAA GGA AAA  
TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC  
AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC TGT  
CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG TGT  
GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC CTC  
AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG GAA  
ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG GAC  
CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG TAC  
CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC TTC  
AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC  
CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC  
TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG  
AAG TTG TGC CTA CCC CAG ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof];

F) <sup>a DNA molecule</sup>  
I <sup>1</sup> DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG  
GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG  
GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG  
AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT  
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA  
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT  
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT  
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA  
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC  
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC  
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT  
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT  
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC

CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA  
GGC ACC ACA

[, or a C- and/or N- terminally shortened sequence thereof];

*a DNA molecule*

G) *I* DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA  
CTG GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC  
TCA GGG GTT ATT GGA GAT AGT GTG TGT CCC CAA GGA  
AAA TAT ATC CAC CCT CAA AAT AAT TCG ATT TGC TGT  
ACC AAG TGC CAC AAA GGA ACC TAC TTG TAC AAT GAC  
TGT CCA GGC CCG GGG CAG GAT ACG GAC TGC AGG GAG  
TGT GAG AGC GGC TCC TTC ACC GCT TCA GAA AAC CAC  
CTC AGA CAC TGC CTC AGC TGC TCC AAA TGC CGA AAG  
GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC ACA GTG  
GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC CAG  
TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC  
CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC  
TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT  
GTC TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC  
ACG AAG TTG TGC CTA CCC CAG ATT GAG AAT

[, or a C- and/or N- terminally shortened sequence thereof];

*a DNA molecule*

H) *I* DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG  
GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG  
GTT ATT GGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC  
CAC CCT CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC  
AAA GGA ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG  
CAG GAT ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC  
ACC GCT TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC  
TCC AAA TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT  
TCT TGC ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG  
AAG AAC CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC  
CAG TGC TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG  
CAC CTC TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC  
TGC CAT GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC  
TCC TGT AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG  
TTG TGC CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG  
GAC TCA GGC ACC ACA

I [, or a C- and/or N- terminally shortened sequence thereof]; and  
a DNA molecule

I I) a DNA comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG  
GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG  
GTT ATT GGA CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG  
AGA GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT  
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA  
ACC TAC TTG TAC AAT GAC TGT CCA GGC CCG GGG CAG GAT  
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT  
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA  
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC  
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC  
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT  
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT  
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC  
CTA CCC CAG ATT GAG AAT GTT AAG GGC ACT GAG GAC TCA  
GGC ACC ACA GTG CTG TTG CCC CTG GTC ATT TTC TTT GGT  
CTT TGC CTT TTA TCC CTC CTC TTC ATT GGT TTA ATG TAT  
CGC TAC CAA CGG TGG AAG TCC AAG CTC TAC TCC ATT GTT  
TGT GGG AAA TCG ACA CCT GAA AAA GAG GGG GAG CTT GAA  
GGA ACT ACT ACT AAG CCC CTG GCC CCA AAC CCA AGC TTC  
AGT CCC ACT CCA GGC TTC ACC CCC ACC CTG GGC TTC AGT  
CCC GTG CCC AGT TCC ACC TTC ACC TCC AGC TCC ACC TAT  
ACC CCC GGT GAC TGT CCC AAC TTT GCG GCT CCC CGC AGA  
GAG GTG GCA CCA CCC TAT CAG GGG GCT GAC CCC ATC CTT  
GCG ACA GCC CTC GCC TCC GAC CCC ATC CCC AAC CCC CTT  
CAG AAG TGG GAG GAC AGC GCC CAC AAG CCA CAG AGC CTA  
GAC ACT GAT GAC CCC GCG ACG CTG TAC GCC GTG GTG GAG  
AAC GTG CCC CCG TTG CGC TGG AAG GAA TTC GTG CGG CGC  
CTA GGG CTG AGC GAC CAC GAG ATC GAT CGG CTG GAG CTG  
CAG AAC GGG CGC TGC CTG CGC GAG GCG CAA TAC AGC ATG  
CTG GCG ACC TGG AGG CGG CGC ACG CCG CGG CGC GAG GCC  
ACG CTG GAG CTG CTG GGA CGC GTG CTC CGC GAC ATG GAC  
CTG CTG GGC TGC CTG GAG GAC ATC GAG GAG GCG CTT TGC  
GGC CCC GCC GCC CTC CCG CCC GCG CCC AGT CTT CTC AGA;

[, or a C- and/or N- terminally shortened sequence thereof]

J) a DNA sequence of A, B, C, D, E, F, G, H or I encoding at least one conservative amino acid substitution;

*molecule comprising the*

I K) a DNA sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a glycosylation site;

I L) a DNA sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a proteolytic cleavage site; and

I M) a DNA sequence of A, B, C, D, E, F, G, H or I encoding at least one amino acid substitution at a cysteine residue.

*recombinant*

16. (Amended) A recombinant host cell containing a DNA molecule comprising a DNA coding for a polypeptide having the ability to bind TNF selected from the group consisting of:

A) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro	leu	val
leu	leu	glu	leu	leu	val	gly	ile	tyr	pro	ser	gly	val	ile
gly	leu	val	pro	his	leu	gly	asp	arg	glu	lys	arg	asp	ser
val	cys	pro	gln	gly	lys	tyr	ile	his	pro	gln	asn	asn	ser
ile	cys	cys	thr	lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn
asp	cys	pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his
cys	leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val	cys	gly
cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp	ser	glu	asn	leu
phe	gln	cys	phe	asn	cys	ser	leu	cys	leu	asn	gly	thr	val
his	leu	ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys
ser	asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn	val	lys	gly	thr	glu	asp	ser	gly	thr
thr	val	leu	leu	pro	leu	val	ile	phe	phe	gly	leu	cys	leu
leu	ser	leu	leu	phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg
trp	lys	ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	lys	pro	thr
leu	ala	pro	asn	pro	ser	phe	ser	pro	thr	pro	gly	phe	thr
pro	thr	leu	gly	phe	ser	pro	val	pro	ser	ser	thr	phe	thr
ser	ser	ser	thr	tyr	thr	pro	gly	asp	cys	pro	asn	phe	ala
ala	pro	arg	arg	glu	val	ala	pro	pro	tyr	gln	gly	ala	asp
pro	ile	leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro	gln	ser
leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr	ala	val	val	glu
asn	val	pro	pro	leu	arg	trp	lys	glu	phe	val	arg	arg	leu
gly	leu	ser	asp	his	glu	ile	asp	arg	leu	glu	gln	asn	

gly arg cys leu arg glu ala gln tyr ser met leu ala thr  
trp arg arg arg thr pro arg arg glu ala leu glu cys leu  
leu gly arg val leu arg asp met asp leu leu gly cys leu  
glu asp ile glu glu ala leu cys gly pro ala ala leu pro  
pro ala pro ser leu leu arg;

B) a polypeptide comprising the amino acid sequence:

asp ser val cys pro gln gly lys tyr ile his pro gln asn  
asn ser ile cys cys thr lys cys his lys gly thr tyr leu  
tyr asn asp cys pro gly pro gly gln asp thr asp cys arg  
glu cys glu ser gly ser phe thr ala ser glu asn his leu  
arg his cys leu ser cys ser lys cys arg lys glu met gly  
gln val glu ile ser ser cys thr val asp arg asp thr val  
cys gly cys arg lys asn gln tyr arg his tyr trp ser glu  
asn leu phe gln cys phe asn cys ser leu cys leu asn gly  
thr val his leu ser cys gln glu lys gln asn thr val cys  
thr cys his ala gly phe phe leu arg glu asn glu cys val  
ser cys ser asn cys lys lys ser leu glu cys thr lys leu  
cys leu pro gln ile glu asn X [; and

C) a fragment of A or B]

C) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one conservative amino acid substitution;

D) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a glycosylation site;

E) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a proteolytic cleavage site; and

F) a polypeptide comprising the amino acid sequence of A, B, C or D with at least one amino acid substitution at a cysteine residue.

1 85. (Amended) A process according to claim 78, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having TNF inhibitory activity, operatively linked to the nucleic acid encoding the [TNF inhibitor] native polypeptide having TNF inhibitory activity.

*Insert new claims 87-133 as follows:*

*87.* An isolated DNA molecule wherein said DNA comprises a sequence selected from the group consisting of:

A)

R<sup>2</sup> GAT AGT GTG TGT CCC CAA GGA AAA TAT ATC CAC CCT  
CAA AAT AAT TCG ATT TGC TGT ACC AAG TGC CAC AAA GGA  
ACC TAC TTG TAC AAT GAC TGT CGA GGC CCG GGG CAG GAT  
ACG GAC TGC AGG GAG TGT GAG AGC GGC TCC TTC ACC GCT  
TCA GAA AAC CAC CTC AGA CAC TGC CTC AGC TGC TCC AAA  
TGC CGA AAG GAA ATG GGT CAG GTG GAG ATC TCT TCT TGC  
ACA GTG GAC CGG GAC ACC GTG TGT GGC TGC AGG AAG AAC  
CAG TAC CGG CAT TAT TGG AGT GAA AAC CTT TTC CAG TGC  
TTC AAT TGC AGC CTC TGC CTC AAT GGG ACC GTG CAC CTC  
TCC TGC CAG GAG AAA CAG AAC ACC GTG TGC ACC TGC CAT  
GCA GGT TTC TTT CTA AGA GAA AAC GAG TGT GTC TCC TGT  
AGT AAC TGT AAG AAA AGC CTG GAG TGC ACG AAG TTG TGC  
CTA CCC CAG ATT GAG AAT

wherein R<sup>2</sup> is absent or is a DNA comprising a sequence coding for a polypeptide which can be cleaved *in vivo*;

B) a fragment or degenerate variant of the polypeptide of A;  
C) a polypeptide comprising the amino acid sequence of A or B with at least one conservative amino acid substitution;  
D) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a glycosylation site;  
E) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a proteolytic cleavage site; and  
F) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a cysteine residue.

*88.* An isolated DNA molecule according to claim *87*, wherein R<sup>2</sup> is a DNA molecule comprising a sequence which codes entirely or partly for a signal sequence.

*18/8*  
I 89. An isolated DNA molecule according to claim *87*, wherein R<sup>2</sup> is a DNA<sub>molecule</sub>  
comprising the sequence CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA or a  
fragment thereof.

*18/9*  
I 90. An isolated DNA molecule according to claim *88*, wherein R<sup>2</sup> is a DNA<sub>molecule</sub>  
comprising the sequence R<sup>3</sup> CTG GTC CCT CAC CTA GGG GAC AGG GAG AAG AGA,  
wherein R<sup>3</sup> is a DNA<sub>molecule</sub> coding for a signal peptide, or a fragment thereof.

*18/10*  
I 91. An isolated DNA molecule according to claim *90*, wherein R<sup>3</sup> is a DNA<sub>molecule</sub>  
comprising the sequence:

ATG GGC CTC TCC ACC GTG CCT GAC CTG CTG CTG CCA CTG  
GTG CTC CTG GAG CTG TTG GTG GGA ATA TAC CCC TCA GGG  
GTT ATT GGA, or a fragment thereof.

*18/11*  
I 92. A nucleic acid which hybridizes with DNA complementary to the DNA defined in  
claim *87* under conditions of low stringency such that the nucleic acid is useful as a hybridization  
probe to detect DNA encoding the polypeptide of A or B.

*18/12*  
I 93. An isolated recombinant DNA molecule, which is replicable in prokaryotic or eukaryotic  
host organisms, wherein said DNA molecule contains expression control sequences functionally  
linked to the DNA sequence defined in claim *87*, or a degenerate variant or a fragment thereof.

*23*  
94. A process for preparing a recombinant TNF receptor protein, comprising  
*42 42 42*  
cultivating the host cell of claim 114 and isolating the expressed protein.

*23*  
95. An isolated DNA molecule coding for a polypeptide selected from the group  
consisting of:

A) a polypeptide comprising the amino acid sequence:

met	gly	leu	ser	thr	val	pro	asp	leu	leu	leu	pro
leu	val	leu	leu	glu	leu	leu	val	gly	ile	tyr	pro
ser	gly	val	ile	gly	leu	val	pro	his	leu	gly	asp
arg	glu	lys	arg	asp	ser	val	cys	pro	gln	gly	lys
tyr	ile	his	pro	gln	asn	asn	ser	ile	cys	cys	thr
lys	cys	his	lys	gly	thr	tyr	leu	tyr	asn	asp	cys
pro	gly	pro	gly	gln	asp	thr	asp	cys	arg	glu	cys
glu	ser	gly	ser	phe	thr	ala	ser	glu	asn	his	leu
arg	his	cys	leu	ser	cys	ser	lys	cys	arg	lys	glu
met	gly	gln	val	glu	ile	ser	ser	cys	thr	val	asp
arg	asp	thr	val	cys	gly	cys	arg	lys	asn	gln	tyr
arg	his	tyr	trp	ser	glu	asn	leu	phe	gln	cys	phe
asn	cys	ser	leu	cys	leu	asn	gly	thr	val	his	leu
ser	cys	gln	glu	lys	gln	asn	thr	val	cys	thr	cys
his	ala	gly	phe	phe	leu	arg	glu	asn	glu	cys	val
ser	cys	ser	asn	cys	lys	lys	ser	leu	glu	cys	thr
lys	leu	cys	leu	pro	gln	ile	glu	asn	val	lys	gly
thr	glu	asp	ser	gly	thr	thr	val	leu	leu	pro	leu
val	ile	phe	phe	gly	leu	cys	leu	leu	ser	leu	leu
phe	ile	gly	leu	met	tyr	arg	tyr	gln	arg	trp	lys
ser	lys	leu	tyr	ser	ile	val	cys	gly	lys	ser	thr
pro	glu	lys	glu	gly	glu	leu	glu	gly	thr	thr	thr
lys	pro	leu	ala	pro	asn	pro	ser	phe	ser	pro	thr
pro	gly	phe	thr	pro	thr	leu	gly	phe	ser	pro	val
pro	ser	ser	thr	phe	thr	ser	ser	ser	thr	tyr	thr
pro	gly	asp	cys	pro	asn	phe	ala	ala	pro	arg	arg
glu	val	ala	pro	pro	tyr	gln	gly	ala	asp	pro	ile
leu	ala	thr	ala	leu	ala	ser	asp	pro	ile	pro	asn
pro	leu	gln	lys	trp	glu	asp	ser	ala	his	lys	pro
gln	ser	leu	asp	thr	asp	asp	pro	ala	thr	leu	tyr
ala	val	val	glu	asn	val	pro	pro	leu	arg	trp	lys
glu	phe	val	arg	arg	leu	gly	leu	ser	asp	his	glu
ile	asp	arg	leu	glu	leu	gln	asn	gly	arg	cys	leu

arg	glu	ala	gln	tyr	ser	met	leu	ala	thr	trp	arg
arg	arg	thr	pro	arg	arg	glu	ala	thr	leu	glu	leu
leu	gly	arg	val	leu	arg	asp	met	asp	leu	leu	gly
cys	leu	glu	asp	ile	glu	glu	ala	leu	cys	gly	pro
ala	ala	leu	pro	pro	ala	pro	ser	leu	leu	arg;	

B) a polypeptide comprising the amino acid sequence:

*106X*

asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his	pro
gln	asn	asn	ser	ile	cys	cys	thr	lys	cys	his	lys
gly	thr	tyr	leu	tyr	asn	asp	cys	pro	gly	pro	gly
gln	asp	thr	asp	cys	arg	glu	cys	glu	ser	gly	ser
phe	thr	ala	ser	glu	asn	his	leu	arg	lis	cys	leu
ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln	val
glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr	val
cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr	trp
ser	glu	asn	leu	phe	gln	cys	phe	asn	cys	ser	leu
cys	leu	asn	gly	thr	val	his	leu	ser	cys	gln	glu
lys	gln	asn	thr	val	cys	thr	cys	his	ala	gly	phe
phe	leu	arg	glu	asn	glu	cys	val	ser	cys	ser	asn
cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys	leu
pro	gln	ile	glu	asn;	[and]						

C) a fragment of A or B complementary to the DNA encoding the polypeptide of A or B; and is useful as a hybridization probe to detect the DNA encoding the polypeptide of A or B;

D) a polypeptide comprising the amino acid sequence of A, B or C with at least one conservative amino acid substitution;

E) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a glycosylation site;

F) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a proteolytic cleavage site; and

G) a polypeptide comprising the amino acid sequence of A, B or C with at least one amino acid substitution at a cysteine residue.

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*23*

96. A DNA according to claim *95*, wherein said polypeptide is selected from the group consisting of:

A) a polypeptide comprising the amino acid sequence:

R <sup>2</sup>	asp	ser	val	cys	pro	gln	gly	lys	tyr	ile	his
pro	gln	asn	asn	ser	ile	cys	cys	thr	lys	cys	his
lys	gly	thr	tyr	leu	tyr	asn	asp	cys	pro	gly	pro
gly	gln	asp	thr	asp	cys	arg	glu	cys	glu	ser	gly
ser	phe	thr	ala	ser	glu	asn	his	leu	arg	his	cys
leu	ser	cys	ser	lys	cys	arg	lys	glu	met	gly	gln
val	glu	ile	ser	ser	cys	thr	val	asp	arg	asp	thr
val	cys	gly	cys	arg	lys	asn	gln	tyr	arg	his	tyr
trp	ser	glu	asn	leu	phe	gln	cys	phe	asn	cys	ser
leu	cys	leu	asn	gly	thr	val	his	leu	ser	cys	gln
glu	lys	gln	asn	thr	val	cys	thr	cys	his	ala	gly
phe	phe	leu	arg	glu	asn	glu	cys	val	ser	cys	ser
asn	cys	lys	lys	ser	leu	glu	cys	thr	lys	leu	cys
leu	pro	gln	ile	glu	asn						

wherein R<sup>2</sup> is absent or is a polypeptide which can be cleaved *in vivo*;

B) a fragment or functional derivative of the polypeptide of A which binds TNF;

C) a polypeptide comprising the amino acid sequence of A or B with at least one conservative amino acid substitution;

D) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a glycosylation site;

E) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a proteolytic cleavage site; and

F) a polypeptide comprising the amino acid sequence of A or B with at least one amino acid substitution at a cysteine residue.

*135*

*24*

97. A DNA according to claim *96*, wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.

~~108~~ 24 A DNA according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.

~~109~~ 25 27 A DNA according to claim 97, wherein said polypeptide includes at least one additional amino acid at the amino-terminus.

~~110~~ 28 27 A DNA according to claim 99, wherein said polypeptide includes a methionine at the amino-terminus.

~~111~~ 29 25 28 A DNA according to claim 100, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.

~~112~~ 30 24 A nucleic acid that hybridizes to a DNA complementary to the DNA defined in claim 96 under conditions of low stringency such that the nucleic acid is useful as a hybridization probe to detect DNA encoding the polypeptide of A or B.

~~113~~ 31 112 3 4 16 23  
of claims 65, 71, 74, 75, 87 or 95  
~~114~~ 31 A vector comprising a DNA sequence coding for a TNF binding protein which binds TNF.

~~115~~ 32 24 A vector comprising a DNA molecule sequence defined in claim 96.

*33*

~~105.~~ A vector according to claim ~~104~~, which is replicable in a prokaryotic and/or a eukaryotic host cell.

*34*

~~106.~~ A vector according to claim ~~105~~, which is replicable in a prokaryotic cell.

*35*

~~107.~~ A vector according to claim ~~106~~, wherein said DNA ~~sequence~~ molecule encodes ATG at the amino terminus of the peptide.

*36*

~~108.~~ A vector according to claim ~~106~~, which is replicable in *Escherichia coli*.

*37*

~~109.~~ A vector according to claim ~~105~~, which is replicable in a eukaryotic cell.

*38*

~~110.~~ A vector according to claim ~~109~~, which is replicable in a mammalian cell.

*39*

~~111.~~ A vector according to claim ~~110~~, which is replicable in a Chinese Hamster Ovary cell.

*40*

~~112.~~ A vector according to claim ~~110~~, which is replicable in a COS cell.

*41*

~~113.~~ A host cell containing a recombinant DNA molecule comprising a DNA sequence defined in claim ~~97~~.

*42*

~~114.~~ A host cell according to claim ~~113~~, which is a prokaryotic cell.

*43*

~~115.~~ A host cell according to claim ~~114~~, which is *Escherichia coli*.

*44*

~~116.~~ A host cell according to claim ~~113~~, which is a eukaryotic cell.

*445*

*44*

*117.* A host cell according to claim *116*, which is a mammalian cell.

*118.* A host cell according to claim *117*, which is a Chinese Hamster Ovary cell.

*119.* A host cell according to claim *117*, which is a COS cell.

*120.* A recombinant host cell according to claim *116*, wherein the DNA molecule comprises promoter DNA, other than the promoter DNA for the native polypeptide having the ability to bind TNF, operatively linked to ~~the DNA sequence defined in claim 96 or 121~~ encoding the polypeptide.

*121.* A process for preparing a polypeptide having the ability to bind TNF comprising producing the polypeptide in a recombinant host cell according to claim *120* under suitable conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering the polypeptide.

*122.* A process for preparing a polypeptide having the ability to bind TNF comprising producing the polypeptide in a recombinant host cell according to claim *120* under suitable conditions to express the DNA molecule contained therein to produce the polypeptide, and recovering the polypeptide.

*123.* A process according to claim *122*, further comprising combining the recovered recombinant polypeptide with a pharmaceutically acceptable carrier to form a pharmaceutical composition.

*124.* A process according to claim *123*, further comprising chemically derivatizing the ~~122~~ recovered harvested recombinant polypeptide.

*125.* A process according to claim *124*, further comprising combining the chemically derivatized ~~recombinant~~ recombinant polypeptide with a pharmaceutically acceptable carrier to form a pharmaceutical composition.

I I 126. A process according to claim 125, wherein ~~said recombinant~~ <sup>53 50</sup> the isolated DNA molecule is contained in an expression vector.

127. An isolated DNA molecule according to one of claims 65, 71, 74, 75, 87, 95 or 96 wherein said polypeptide includes at least one additional amino acid at the amino-terminus, at the carboxyl-terminus, or at both the amino-terminus and at the carboxyl-terminus.

128. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the amino-terminus and at the carboxyl-terminus.

129. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the amino-terminus.

130. An isolated DNA molecule according to claim 129, wherein said polypeptide includes a methionine at the amino-terminus.

131. An isolated DNA molecule according to claim 127, wherein said polypeptide includes at least one additional amino acid at the carboxyl-terminus.

132. An isolated DNA molecule according to claim 65, 71, 74, 75, 87, 95 or 96, wherein said polypeptide includes a methionine at the amino-terminus and said amino acid substitution is at a glycosylation site.

133. An isolated DNA molecule according to claim 65, 71, 74, 75, 87, 95 or 96, wherein said polypeptide includes an amino acid substitution is at a glycosylation site.